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Date: 11/10/00

By: Kristi B. Cooper

PATENT

IN THE UNITED STATES PATENT AND
TRADEMARK OFFICE

Applicant(s): John F. Stone

Docket No.: 36435.0100

Serial No.: 09/498,135

Filed: February 4, 2000

Examiner: Goldberg, J.

Title: CHROMOSOME-BASED METHOD FOR
FACILITATING DISEASE DIAGNOSISGroup Art 1655
Unit:Assistant Commissioner of Patents
Washington, D.C. 20231

Dear Sir:

Applicant wishes to thank Examiner Goldberg and Primary Examiner Arthur for their gracious courtesies extended in a November 9, 2000 interview and for the opportunity to present additional claim amendments. Please amend the application as follows.

In the Claims

Please delete claim 14, without prejudice or disclaimer.

Please amend claims 1, 11, and 16-17 as follows.

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1. (Twice Amended) A method suitable for facilitating disease diagnosis, the method comprising the steps of:
- exposing cells of a patient, suspected of having a disease for which chromosome damage is diagnostic, to a chromosome damaging agent selected to damage chromosomes within the nuclei of the cells to produce chromosome fragments;
 - marking at least some of the chromosome fragments; and
 - analyzing the marked chromosome fragments within interphase cell nuclei to determine whether the cells were affected by the disease, wherein said analyzing includes comparing information obtained from cells of a patient suspected of having a disease to information obtained from cells of suspected healthy patients.

11. (Twice Amended) A method for analyzing an effect of disease on cells, the method comprising the steps of:

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preparing cells suspected of being affected by a disease for which chromosome damage is diagnostic by exposing the cells to a chromosome breakage agent to form chromosome pieces within nuclei of the cells;

marking at least a portion of the chromosome pieces within [the cells'] interphase nuclei;

counting a number of marked chromosome pieces to analyze the effect of the disease on cells; and

comparing said number of marked chromosome pieces to information obtained from a control group.

16. (Twice Amended) A method suitable for facilitating diagnosis of Alzheimer's disease, the method comprising the steps of:

exposing cells thought to be affected by Alzheimer's disease to a chromosome damaging agent;

exposing the cells thought to be affected by Alzheimer's disease to a chromosome breakage agent to form chromosome pieces;

marking at least some of the chromosome pieces within [the cells'] interphase nuclei; [and]

measuring an amount of marked chromosome pieces; and

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comparing a number of marked chromosome pieces present in the cells thought to be affected by Alzheimer's disease to information relating to a control group.

17. (Twice Amended) The method suitable for facilitating diagnosis of Alzheimer's disease of claim 16, the method further comprising the steps of:

exposing cells thought to be unaffected by Alzheimer's disease to a chromosome damaging agent;

exposing the cells thought to be unaffected by Alzheimer's disease to a chromosome breakage agent to form chromosome pieces;


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cont

marking at least some of the chromosome pieces of cells thought to be unaffected by Alzheimer's disease;
measuring an amount of marked chromosome pieces present within [the cells'] interphase nuclei thought to be unaffected by disease;
[comparing a number of marked chromosome pieces present in the cells thought to be affected by the disease to a number of marked chromosomes pieces present in the cells thought to be unaffected by the disease;] and
determining diagnosis from said comparing step.

REMARKS

Applicant believes that in view of the foregoing arguments, all pending claims are allowable over the cited references. Applicant therefore earnestly solicits allowance of pending claims 1-13 and 15-17. The undersigned would welcome a telephone call at the telephone number listed below if such would advance prosecution of this application.

Respectfully submitted,

By: 
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